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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09-777,682	02/07/2001	Yuji Isoda	Q61219	3337

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EXAMINER

LEE, SHUN K

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 09/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/777,682

Applicant(s)

ISODA, YUJI

Examiner

Shun Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 29 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 17-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 7-11 and 14-16 is/are allowed.
- 6) ☐ Claim(s) 1-4, 6, 12 and 25-28 is/are rejected.
- 7) ☐ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 07 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species I of group I (claims 1-4, 6-10, 12-16, 25-28) in Paper No. 6 is acknowledged.
2. Claims 5 and 17-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Information Disclosure Statement

3. The listing of references in the specification (pg. 3, 16, and 26) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 70b (Figs. 3, 5b, 5c, and 5d), 82 (Fig. 8), and 22 (Fig. 9). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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5. The drawings are objected to because: in Fig. 10, "(kg/cm²)" should probably be --PRESSURE (kg/cm²)--. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities: "21" in lines 11, 12, and 16 on pg. 39 should probably be --22-- (see Fig. 9). Appropriate correction is required.

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

8. Claim 13 is objected to because of the following informalities: Claim 13 lacks a period (*i.e.*, each claim begins with a capital letter and ends with a period; see MPEP 608.01(m)). Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 recites the limitation that the alkali halide represented by MX in formula (I) is potassium which fails to specify the halogen in the alkali halide and is thus indefinite.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herron *et al.* (US 5,556,716) in view of Kesting (US 4,450,126).

In regard to claims 1-4, Herron *et al.* disclose a radio-conductive material in the form of a nano-composite (column 4, line 62 to column 5, line 2) comprising nylon (column 5, lines 34-46) and inorganic material (e.g., bismuth iodide; column 4, lines 55-61) having radiation absorbing power (column 3, lines 29-33). The radio-conductive material of Herron *et al.* lacks an explicit description that the nylon is an alcohol-soluble nylon (e.g., composite material of nylon 6 and nylon 66). Nylons are well known in the art. For example, Kesting teaches (column 1, lines 11-38) that an alcohol-soluble nylon such as a composite material of nylon 6 and nylon 66 has high burst strengths and flexibilities. Therefore it would have been obvious to one having ordinary skill in the art to provide an alcohol-soluble nylon such as a composite material of nylon 6 and nylon 66 as the nylon in the solid sensor of Herron *et al.*, in order to obtain a radio-conductive film (60) having high burst strengths.

In regard to claim 6 which is dependent on claim 1, Herron *et al.* also disclose (column 1, line 53 to column 2, line 4) a solid sensor having a radio-conductive layer formed of a radio-conductive material defined in claim 1.

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12. Claims 25, 26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herron *et al.* (US 5,556,716).

In regard to claims **25** and **26**, Herron *et al.* disclose (column 1, line 53 to column 2, line 4; Fig. 1) a solid sensor comprising a radio-conductive layer (60) formed of inorganic/organic composite material (e.g., bismuth iodide/nylon composite material; column 4, lines 55-61; column 5, lines 34-46) and an electrode (70) provided on the radio-conductive layer (60) and that the electrode (70) comprises a metal (column 6, lines 33-38). The solid sensor of Herron *et al.* lacks an explicit description that the metal is indium. However, metals such as indium (see for example, Merriam-Webster's Collegiate[®] Dictionary, Tenth Edition) are well known in the art. Therefore it would have been obvious to one having ordinary skill in the art to provide indium as the metal for the electrode (70) in the solid sensor of Herron *et al.*, in order to form a metallic conductive electrode.

In regard to claim **28** which is dependent on claim 25, Herron *et al.* also disclose (column 1, line 53 to column 2, line 4) a radiation image read-out apparatus comprising the solid sensor defined in claim 25 and a read-out means for reading out a radiation image recorded on the solid sensor as a latent radiation image.

13. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herron *et al.* (US 5,556,716) in view of Kesting (US 4,450,126).

In regard to claim **27** which is dependent on claim 25, Kesting is applied as in claim 1 above.

Allowable Subject Matter

14. Claims 7-11 and 14-16 are allowed.
15. Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
16. The following is a statement of reasons for the indication of allowable subject matter: the instant application is deemed to be directed to a nonobvious improvement over the invention patented in US Patent 5,556,716. The improvement comprises in combination with other recited elements, $x\text{-MX}$ wherein M represents at least one alkali metal selected from the group consisting of Li, Na, K, Rb and Cs, X represents at least one halogen selected from the group consisting of F, Cl, Br and I, and the ratio x by weight of MX to BiI_3 is $0 < x \leq 1$ or $0 < x \leq 0.2$.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (703) 308-4860. The examiner can normally be reached on Tuesday-Thursday.

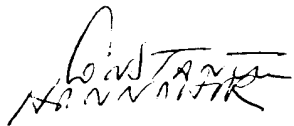
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878

SL
September 19, 2002